



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,836	11/24/2003	Takashi Kano	SERA:001	3617

7590 10/18/2006  
ROSSI & ASSOCIATES  
P.O. Box 826  
Ashburn, VA 20146-0826

EXAMINER

STEVENS, THOMAS H

ART UNIT PAPER NUMBER

2123

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/720,836	<b>Applicant(s)</b> KANO ET AL.	
	<b>Examiner</b> Thomas H. Stevens	<b>Art Unit</b> 2123	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/24/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-23 have been examined.

#### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because its less than 50 words. Correction is required. See MPEP § 608.01(b).

***Claim Objections***

4. Claims 16 and 20 is objected to because of the following informalities: For claims 16 the limitation of "parameter value of the same", "the same" might cause a possible antecedent problem; suggestion: "or a parameter of equal value". For claim 20, the limitation of "the order" might cause an antecedent problem. Suggestion: "an order". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Batori et al., (US Patent 7,119,805, hereafter Batori). Batori teaches information processing of 3D models (abstract).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in

Art Unit: 2123

the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131:

Claim 1. An aided design apparatus comprising data output (column 10, lines 55-57) means for outputting (column 10, lines 55-57) data of an attribute name (column 3, lines 61-62) associated with an attribute group (column 16, lines 55-56) of a part used for transportation (column 3, lines 5-9) of a sheet along with three-dimensional shape data (column 3, lines 5-7) of the part.

Claim 2. An aided design apparatus according to claim 1, comprising a three-dimensional shape input unit for inputting the three-dimensional shape data (column 3, lines 5-7) of the part.

Claim 3. An aided design apparatus according to claim 1, comprising attribute group (column 16, lines 55-56) input means for inputting data of the attribute group (column 16, lines 55-56) of the part and the attribute name (column 3, lines 61-62) associated with the attribute group.

Claim 4. An aided design apparatus according to claim 1, wherein the attribute group (column 16, lines 55-56) includes at least one of a transport (column 3, lines 5-9) guide, a transport roller, a polyester film, a flapper, a sensor, and a sheet transport path.

Art Unit: 2123

Claim 5. An aided design apparatus according to claim 4, wherein when the attribute group (column 16, lines 55-56) is a transport guide, the data of the attribute name (column 3, lines 61-62) associated therewith is a frictional coefficient.

Claim 6. An aided design apparatus according to claim 4, wherein when the attribute group (column 16, lines 55-56) is a transport roller, the data of the attribute name (column 3, lines 61-62) associated therewith includes at least one of a pressing force, a driving condition, a frictional coefficient, and an inertial force.

Claim 7. An aided design apparatus according to claim 4, wherein when the attribute group (column 16, lines 55-56) is a polyester film, the data of the attribute name (column 3, lines 61-62) associated therewith includes at least either of a Young's modulus and a frictional coefficient.

Claim 8. An aided design apparatus according to claim 4, wherein when the attribute group (column 16, lines 55-56) is a flapper, the data of the attribute name (column 3, lines 61-62) associated therewith is a driving condition.

Claim 9. An aided design apparatus according to claim 4, wherein when the attribute group (column 16, lines 55-56) is a sensor, the data of the attribute name (column 3, lines 61-62) associated therewith is a driving condition.

Art Unit: 2123

Claim 10. An aided design apparatus according to claim 4, wherein when the attribute group (column 16, lines 55-56) is a sheet transport path, the data of the attribute name (column 3, lines 61-62) associated therewith is a path length of the sheet transport path.

Claim 11. An aided design apparatus according to claim 1, comprising sectional view creating means for creating a sectional view by specifying a principal section based on the three-dimensional shape data (column 3, lines 5-7) of the part and the data of the attribute name (column 3, lines 61-62) associated with the attribute group.

Claim 12. An aided design apparatus according to claim 11, comprising means for inputting at least one of the sheet transport (column 3, lines 5-9) path, a branch position of the sheet transport path, the order of the sheet transport path, and the position of a sensor on the sheet transport path in the sectional view created by the sectional view creating means.

Claim 13. An aided design apparatus according to claim 1, comprising attribute extraction means for extracting the data of the attribute name (column 3, lines 61-62) used at a destination of output (column 10, lines 55-57).

Claim 14. An aided design apparatus according to claim 13, comprising data conversion means for converting an output (column 10, lines 55-57) format of the data of the attribute name (column 3, lines 61-62) to be output (column 10, lines 55-57) to the

Art Unit: 2123

destination of output (column 10, lines 55-57) such that it matches the data of the attribute name (column 3, lines 61-62) at the destination of output (column 10, lines 55-57) extracted by the attribute extraction means.

Claim 15. An aided design apparatus according to claim 1, comprising reading means for reading a file in which the attribute group (column 16, lines 55-56) of the part, the data of the attribute name, and the destination of output (column 10, lines 55-57) are defined as items.

Claim 16. An aided design apparatus according to claim 15, comprising correction means for making addition, deletion (deletion button on computer), and correction (user executed) on each of the items defined in the file read by the reading means or a parameter value of the same.

Claim 17. An aided design apparatus according to claim 1, comprising parameter calculation means for automatically determining parameters of other attribute names by selecting a value for the data of the attribute name (column 3, lines 61-62) associated with the attribute group (column 16, lines 55-56) with the attribute group (column 16, lines 55-56) input means.

Claim 18. An aided design method comprising the steps of: inputting three-dimensional shape data (column 3, lines 5-7) of a part used for transporting a sheet; inputting data



Art Unit: 2123

of an attribute group (column 16, lines 55-56) of the part and an attribute name (column 3, lines 61-62) associated with the attribute group; and outputting (column 10, lines 55-57) the data of the attribute name (column 3, lines 61-62) along with the three-dimensional shape data.

Claim 19. An aided design method according to claim 18, comprising the step of creating a sectional view by specifying a principal section based on the three-dimensional shape data (column 3, lines 5-7) of the part and the data of the attribute name (column 3, lines 61-62) associated with the attribute group.

Claim 20. An aided design method according to claim 19, comprising the step of inputting at least one of the sheet transport(column 3, lines 5-9) path, a branch position of the sheet transport path, the order of the sheet transport path, and the position of a sensor on the sheet transport path in the sectional view created at the sectional view creating step.

Claim 21. An aided design method according to claim 19, comprising the step of selecting an output (column 10, lines 55-57) destination to which data of the sectional view, the three-dimensional shape data (column 3, lines 5-7)of the part, and the data of the attribute name (column 3, lines 61-62)are to be output (column 10, lines 55-57).

Claim 22. An aided design method according to claim 21, comprising the step of

Art Unit: 2123

automatically selecting an item to be output (column 10, lines 55-57) according to the destination of output (column 10, lines 55-57) selected at the step of selecting the output (column 10, lines 55-57) destination and outputting (column 10, lines 55-57) the value of the selected item to be output (column 10, lines 55-57) in a text file format.

Claim 23. A recording medium having a program recorded therein, the program causing an aided design apparatus to execute the steps of: inputting three-dimensional shape data (column 3, lines 5-7) of a part used for transporting a sheet; inputting data of an attribute group (column 16, lines 55-56) of the part and an attribute name (column 3, lines 61-62) associated with the attribute group; and outputting (column 10, lines 55-57) the data of the attribute name (column 3, lines 61-62) along with the three-dimensional shape data.

### ***Citation to Relevant Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Yoneda et al., "An Optimization-Based Production Scheduling System Progress Report" IEEE 1996: teaches manufactured scheduling progress report software.
- Horikoshi et al., "3-D Shape Indexing Language" IEEE 1990: teaches 3-D shape database.

### ***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm EST).

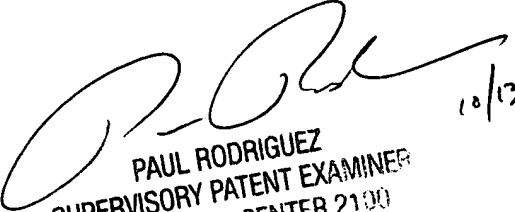
Art Unit: 2123

If attempts to reach the examiner by telephone are unsuccessful, please contact examiner's supervisor Mr. Paul Rodriguez 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Answers to questions regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) (toll-free (866-217-9197)).

October 12, 2006

TS

 10/13/06  
PAUL RODRIGUEZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100